

### **REMARKS**

In the Office Action, the Examiner rejected claims 1-4 under 35 U.S.C. § 101 as directed to non-statutory subject matter; rejected claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,267,789 to Besaw et al. ("*Besaw*"); rejected claims 3, 5, 6, and 7 under 35 U.S.C. § 103(a) as being unpatentable over *Besaw* in view of U.S. Patent No. 5,761,429 to Thompson ("*Thompson*"); rejected claim 4 under 35 U.S.C. § 103(a) as unpatentable over *Besaw* in view of *Thompson* and further in view of Microsoft Excel 2000 ("*Excel*"); rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over *Besaw* in view of *Thompson* and further in view of U.S. Patent No. 6,502,131 to Vaid et al. ("*Vaid*"); and rejected claims 1, 3, and 5 for nonstatutory double patenting.

Based on the following remarks, Applicants respectfully traverse the rejections presented in the Office Action.

#### **I. The Rejection of Claims 1-4 Under 35 U.S.C. § 101**

The Examiner states that "the claimed invention is not directed to one of the four statutory categories of invention and are thus non-statutory." (Office Action at p. 2). However, amended claim 1 recites a "computer-readable medium comprising instructions for causing a processor to display a graphical user interface" (emphasis added). Thus, claim 1 recites a statutory machine in the form of a computer-readable medium.

The Examiner also states that claims 1-4 "fail[] to provide a practical application and thus do[] not produce a tangible result" (Office Action at p. 2). Applicants disagree

with the Examiner's characterization of the claims as not producing a "tangible result." The MPEP states, "[o]nly when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. § 101" (MPEP § 2106), and claim 1, for example, recites "instructions for causing a processor to display a graphical user interface" (emphasis added). Displaying a graphical user interface is a tangible result.

The Examiner also states that "the GUI is a non-functional descriptive matter and is thus non-statutory" (Office Action at p. 2). Applicants disagree that claim 1 recite nonfunctional descriptive material. MPEP § 2106.01 states that nonfunctional descriptive material includes "music, literary works, and a compilation or mere arrangement of data," while functional descriptive material consists of "data structures and computer programs which impart functionality when employed as a computer component." Assuming the claimed GUI recites "descriptive matter," it is clearly "functional" descriptive matter, as the claimed instructions impart the functionality of displaying the GUI when the claimed computer-readable medium is employed as a computer component.

For at least the reasons that claim 1 recites a statutory machine, produces a tangible result, and recites a computer-readable medium comprising functional descriptive matter, claim 1 is statutory. Claim 4, although of different scope than claim 1, recites statutory subject matter for at least the same reasons as discussed for claim 1. Claims 2 and 3 are statutory at least due to their dependence from

statutory claim 1. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 1-4 under 35 U.S.C. § 101.

**II. The Rejection of Claims 1 and 2 under 35 U.S.C. § 102(b)**

To properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(b), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the...claim." See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th Ed. 2001), p. 2100-69. Applicants traverse the rejection of claims 1 and 2 under 35 U.S.C. § 102(b) for the following reasons.

Claim 1 recites, for example, "a computer-readable medium comprising instructions for causing a processor to display a graphical user interface (GUI), the GUI comprising a graph with edges and vertices, the vertices representing grid nodes .... wherein each the edges represents an association between two of the grid managers" (emphasis added). *Besaw* fails to teach or suggest, among other things, the claimed "edges represent[ing] an association between two [] grid managers."

*Besaw* discloses a "system for automatically laying out and graphically displaying the topology of a computer network system" (*Besaw*). *Besaw* also discloses laying out nodes as vertices, and connections between the nodes as edges between the nodes, in graphical form (*Besaw*, col. 2, lines 16-20). The Examiner relies on *Besaw*'s edges

representing connections as allegedly corresponding to the claimed “edges” (Office Action at p. 3). However, the claimed edges “represent[] an association between two [] grid managers.” In contrast, *Besaw* does not disclose a grid manager at all. Therefore, *Besaw* fails to teach or suggest the claimed “edges represent[ing] an association between two [] grid managers,” as recited by independent claim 1.

Because *Besaw* does not teach or suggest the claimed “edges represent[ing] an association between two [] grid managers,” *Besaw* cannot anticipate or render obvious claim 1. Claim 2 depends from claim 1. *Besaw* therefore does not anticipate claim 2 for at least the same reasons set forth above in connection with claim 1. Therefore, Applicants request that the rejection of claims 1 and 2 under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

### **III. The Rejection of Claims 3, 5, 6, and 7 under 35 U.S.C. § 103(a)**

Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 3, 5, 6, and 7 under 35 U.S.C. § 103(a) because a *prima facie* case of obviousness has not been established with respect to these claims.

A *prima facie* case of obviousness has not been established because, among other things, the cited references, taken alone or in combination, fail to teach or suggest each and every element recited by Applicant’s claims.

#### **A. Claim 3**

Claim 3 depends from claim 1. As already discussed, *Besaw* fails to teach or suggest a computer-readable medium comprising instructions for causing a processor

to display a graphical user interface (GUI), the GUI comprising “edges represent[ing] an association between two [] grid managers.” *Thompson* also fails to teach or suggest a GUI comprising “edges represent[ing] an association between two [] grid managers.”

*Thompson* discloses a network controller for monitoring the status of a network, including a hierarchical object-based data structure representative of the network (*Thompson*, abstract). *Thompson* also discloses an object-based graphical user interface for interacting with the object hierarchy (*Thompson*, col. 1 line 66 to col. 2 line 3). However, *Thompson* does not disclose that a grid manager or a representation of an association between grid managers. Therefore, *Thompson* fails to teach or suggest “edges represent[ing] an association between two [] grid managers.”

For at least the reason that the cited references fail to teach or suggest the claimed “edges represent[ing] an association between two [] grid managers,” no *prima facie* case has been established with respect to claim 3. Therefore, Applicants respectfully request the Examiner to withdraw the rejection under 35 U.S.C. § 103(a) and allow claim 3.

#### **B. Claims 5, 6, and 7**

Claim 5 recites a method comprising, for example, “sending a first query to the first grid manager requesting a first list of grid managers having an inferior relation to the first node,” “receiving a response from the first grid manager to the first query,” and “displaying nodes corresponding to the grid managers in the first list and drawing vectors from the first grid manager to the grid managers in the first list of grid managers.” As discussed, both *Besaw* and *Thompson* fail to teach or suggest a “grid

manager” and therefore both *Besaw* and *Thompson* fail to teach or suggest these recitations of claim 5. Therefore, no prima facie case of obviousness has been established with respect to claim 5. Claims 6 and 7 are allowable at least due to their dependence from claim 5.

However, the Examiner alleges that “the term ‘grid manager(s)’ is nonfunctional descriptive material and is not functionally involved in the steps recited” (Office Action at p. 6). The Examiner is incorrect that the claimed “grid managers” are nonfunctional descriptive material. As discussed above with respect to the 35 U.S.C. § 101 rejection of claims 1-4, MPEP § 2106.01 states that nonfunctional descriptive material includes “music, literary works, and a compilation or mere arrangement of data,” while functional descriptive material consists of “data structures and computer programs which impart functionality when employed.”

Here, the claimed “grid managers” clearly impart functionality when employed in the method of claim 5. As discussed, claim 5 recites “sending a first query to the first grid manager requesting a first list of grid managers having an inferior relation to the first node,” “receiving a response from the first grid manager to the first query,” and displaying nodes corresponding to the grid managers in the first list and drawing vectors from the first grid manager to the grid managers in the first list of grid managers.” Thus, the claimed “first grid manager” imparts functionality to the method at least through the claimed “response ... to the first query.”

The Examiner also states that “[t]he examiner interprets “grid manager” to be a form of network management system and does not affect the patentability of the overall invention” (Office Action at p. 6). However, the Examiner’s interpretation of the term “grid manager” does not preclude the claimed grid manager from “imparting functionality” to the method. Moreover, the Examiner’s interpretation is far more analogous to the definition of functional descriptive material discussed above than to “music, literary works, and a compilation or mere arrangement of data.” At best, the term “grid manager” in claim 5 is functional descriptive material and thus entitled to patentable weight, and Applicants respectfully request the Examiner to address such recitations of claim 5 in the next Office Action.

#### **IV. The Rejection of Claim 4 under 35 U.S.C. § 103(a)**

Claim 4 recites a computer-readable medium comprising instructions for causing a processor to perform a method, the method comprising displaying a GUI, the GUI comprising “a graph with vectors and nodes for visualizing a computer grid, the nodes representing computers running grid managers and the vectors representing relations between pairs of grid managers.” As discussed, both *Besaw* and *Thompson* fail to teach or suggest a “grid manager” and therefore both *Besaw* and *Thompson* fail to teach or suggest these recitations of claim 4.

*Excel* fails to cure the deficiencies of *Besaw* and *Thompson*. *Excel* discloses hiding, revealing, and formatting columns or rows in a spreadsheet (*Excel*, p. 67-68). However, *Excel* does not disclose a grid manager. Therefore, *Excel* does not teach or

suggest the claimed “a graph with vectors and nodes for visualizing a computer grid, the nodes representing computers running grid managers and the vectors representing relations between pairs of grid managers.” Therefore, no prima facie case of obviousness has been established with respect to claim 4.

However, the Examiner alleges that “the terms ‘grid managers, computer grid applications, and management services’ are “nonfunctional descriptive material” and “not functionally involved in the steps recited” (Office Action at p. 12). The Examiner is incorrect that the claimed “grid managers,” “computer grid applications,” and “management services” are nonfunctional descriptive material. None of these terms can be fairly characterized as “music, literary works, and a compilation or mere arrangement of data.” Moreover, each of the terms is “functionally involved” in the recited steps.

Claim 4 recites “displaying a graphical user interface (GUI),” and the GUI comprises “nodes representing computers running grid managers.” Thus, the functionality of the GUI, when displayed, depends upon the representation of the grid managers in the GUI. Thus, the claimed “grid managers” are functionally involved in the steps recited by claim 4.

Moreover, the claimed GUI comprises, for each node, “an expandable structure showing computer grid applications running on a computer represented by the node.” Like the claimed grid managers, the functionality of the displayed GUI



depends upon the computer grid applications displayed in the GUI, and the claimed “computer grid applications” are functionally involved in the steps recited by claim 4.

The steps recited by claim 4 also include “receiving, with an event handler, a request to view management services running on each of the computers” and “generating a display showing the management services running on each of the computers.” Thus, the claimed management services are functionally involved in these steps at least by virtue of the “display showing the management services.”

For at least these reasons, the claimed “grid managers,” “computer grid applications,” and “management services” amount, at best, to functional descriptive material and are thus entitled to patentable weight, and Applicants respectfully request the Examiner to address such recitations of claim 4 in the next Office Action.

#### **V. The Rejection of Claim 8 under 35 U.S.C. § 103(a)**

Claim 8 depends from claim 5. As already discussed, *Besaw* and *Thompson* fail to teach or suggest a method comprising, for example, “sending a first query to the first grid manager requesting a first list of grid managers having an inferior relation to the first node” and “receiving a response from the first grid manager to the first query.”

*Vaid* fails to cure the deficiencies of *Besaw* and *Thompson*. *Vaid* discloses a “method and system (100) for monitoring or profiling quality of service within one or more information sources in a network of computers” (*Vaid*, abstract). *Vaid* also discloses a graphical user interface including cumulative traffic statistics in a network, services on the network, and the amount of data transferred over the network (*Vaid*,

FIG. 9 and col. 18, lines 30-50). However, *Vaid* does not disclose a grid manager, or a query from or to a grid manager. Therefore, *Vaid* fails to teach or suggest either “sending a first query to the first grid manager requesting a first list of grid managers having an inferior relation to the first node” or “receiving a response from the first grid manager to the first query,” as recited by independent claim 5 and required by claim 8.

For at least the reason that the cited references fail to teach or suggest the claimed “sending a first query to the first grid manager requesting a first list of grid managers having an inferior relation to the first node” and “receiving a response from the first grid manager to the first query,” no *prima facie* case has been established with respect to claim 8. Therefore, Applicants respectfully request the Examiner to withdraw the rejection under 35 U.S.C. § 103(a) and allow claim 8.

#### **VI. The Rejection of Claims 1, 3, and 5 for Nonstatutory Double Patenting**

The Examiner provisionally rejected claims 1, 3, and 5 of this application over claims 1 and 7 of copending Application No. 10/706,377. Independent claims 1 and 5 have been amended to recite subject matter not claimed in copending Application No. 10/706,377, and claim 3 depends from claim 1. Applicants therefore request reconsideration and withdrawal of the obviousness-type double patenting rejection of these claims in view of the amended claims.

#### **VII. Conclusion**

In view of the foregoing remarks, Applicants submit that this claimed invention, is neither anticipated nor rendered obvious in view of the cited art. Applicants therefore

request the Examiner's reconsideration and reexamination of the application and the timely allowance of the pending claims.

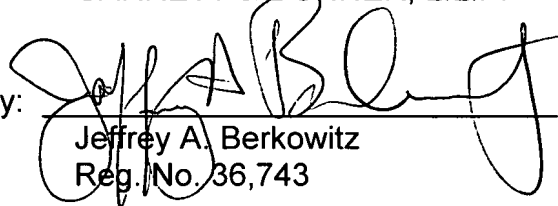
Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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